PATENT
ATTORNEY DOCKET NO. 50047/015002

Certificate of Mailing: Date of Deposit: April 13, 2007

I hereby certify under 37 C.F.R. § 1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated above and is addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Sarah Wilcox
Printed name of person mailing correspondence

Sarah Wilcox
Signature of person mailing correspondence

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Fey et al.	Confirmation No.:	5268
Serial No.:	10/559,551	Art Unit:	Not Yet Assigned
Filed:	April 27, 2006	Examiner:	Not Yet Assigned
Customer No.:	21559		
Title:	COMPOSITIONS FOR THE TREATMENT AND PREVENTION OF DEGENERATIVE JOINT DISORDERS		

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicants submit the references listed on the enclosed Form PTO-1449, copies of which are enclosed with the exception of U.S. patents and U.S. patent application publications. Copies of search reports from corresponding international applications are also enclosed.

Submission of this statement is not a representation that a search has been made, nor is the inclusion of information in this statement an admission that the information is material to patentability.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /ALC/

This statement is being filed before the receipt of a first Office action on the merits.

If there are any charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

Todd Armstrong, Ph.D.
Reg. No. 54,590

Date: 13 April 2007

for Paul T. Clark
Reg. No. 30,162

Clark & Elbing LLP
101 Federal Street
Boston, MA 02110
Telephone: 617-428-0200
Facsimile: 617-428-7045

SUBSTITUTE FORM PTO-1449 (MODIFIED) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	Attorney Docket No.	50047/015002
	Serial No.	10/559,551
	Applicant	Fey et al.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Filing Date	April 27, 2006
	Group	Not Yet Assigned
(37 C.F.R. § 1.98(b))	IDS Filed	April 13, 2007

U.S. PATENT DOCUMENTS			
Examiner's Initials	Document Number	Publication Date	Patentee or Applicant
/ALC/	2,487,377	11/08/1949	Roehner et al.
	2,734,862	02/14/1956	Morway et al.
	2,878,184	03/17/1959	March et al.
	4,108,849	08/22/1978	Thomas
	4,438,100	03/20/1984	Balslev et al.
	5,260,417	11/09/1993	Grant et al.
	5,326,558	07/05/1994	Turner et al.
	5,403,592	04/04/1995	Hills
	5,510,121	04/23/1996	Rhee et al.
	5,510,122	04/23/1996	Sreebny et al.
	5,515,590	05/14/1996	Pienkowski
	5,605,938	02/25/1997	Roufa et al.
	5,612,028	03/18/1997	Sackier et al.
	5,639,734	07/17/1997	Esko et al.
	5,639,796	06/17/1997	Lee
	5,702,456	12/30/1997	Pienkowski
	5,709,020	01/20/1998	Pienkowski et al.
	5,973,224	10/26/1999	Fuchs et al.
	6,291,533	09/18/2001	Fleischner
	6,433,142	08/13/2002	Turner et al.
/ALC/	6,720,156	04/13/2004	Hutchins et al.

EXAMINER	/Amy Clark/	DATE CONSIDERED	12/01/2008

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SUBSTITUTE FORM PTO-1449 (MODIFIED) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	Attorney Docket No.	50047/015002
	Serial No.	10/559,551
	Applicant	Fey et al.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Filing Date	April 27, 2006
	Group	Not Yet Assigned
(37 C.F.R. § 1.98(b))	IDS Filed	April 13, 2007

U.S. PATENT DOCUMENTS				
/ALC/	6,743,774	06/01/2004	Jay	
	6,960,562	11/01/2005	Jay	
	7,001,881	02/21/2006	Jay	
	2003/0069272	04/10/2003	Yenxa et al.	
	2003/0180948	09/25/2003	Hutchins et al.	
	2003/0224386	12/04/2003	Guild et al.	
	2004/0048325	03/11/2004	DeFrees	
/ALC/	2004/072741	04/15/2004	Jay	

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION				
Examiner's Initials	Document Number	Publication Date	Country or Patent Office	Translation (Yes/No)
	~~JP 04278061~~	~~10/02/1992~~	~~Japan (English Abstract)~~	
/ALC/	WO 92/13075	08/06/1992	WIPO	
	WO 98/18491	05/07/1998	WIPO	
	WO 00/64930	11/02/2000	WIPO	
	WO 03/000056	01/03/2003	WIPO	
	WO 05/016130	02/24/2005	WIPO	
/ALC/	WO 05/084684	09/15/2005	WIPO (English Abstract)	No

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)	
/ALC/	Amann et al., "New Potent Sialytransferase Inhibitors—Synthesis of Donor and of Transition-State Analogues of Sialyl Donor CMP-Neu5Ac," *Chemistry –A European Journal* 4: 1106-1115, 1998.
/ALC/	Aydelotte et al., "Heterogeneity of Articular Chondrocytes," *Articular Cartilage and Osteoarthritis* 237-249, 1992.

EXAMINER	/Amy Clark/	DATE CONSIDERED	12/01/2008

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.

SUBSTITUTE FORM PTO-1449 (MODIFIED) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	Attorney Docket No.	50047/015002
	Serial No.	10/559,551
	Applicant	Fey et al.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Filing Date	April 27, 2006
	Group	Not Yet Assigned
(37 C.F.R. § 1.98(b))	IDS Filed	April 13, 2007

	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)
/ALC/	Brown et al., "Glycoside Decoys of Glycosylation," *Trends in Glycoscience and Glycotechnology* 13: 335-343, 2001.
	Caron, "Understanding the Pathogenesis of Equine Osteoarthritis," *Br. Vet. J.* 148: 369-371, 1992.
	Chen et al., "Influence of Trypsin on the Biological Bonding of Cartilaginous Surface to Bone in Rabbits," *Arch. Orthop. Trauma Surg.* 120: 587-591, 2000.
	Clark et al., "MSF precursor", Feb. 2, 1993, Database A_Geneseq_1101, Accession NO: AAR26049.
	Elsaid et al., "Association of Articular Cartilage Degradation and Loss of Synovial Fluid Boundary-Lubricating Ability Following Injury and Inflammatory Arthritis," *Arthritis & Rheumatism* 52: 1746-1755, 2005.
	Elsaid et al., "Reduced Expression and Proteolytic Susceptibility of Lubricin/Superficial Zone Protein May Explain Early Evaluation in the Coefficient of Friction in the Joints of Rats with Antigen-Induced Arthritis," *Arthritis Rheum.* 56: 108-116, 2007.
	EMBL Sequence Database Accession Number Q92954, 1997.
	EMBL Sequence Database Accession Number U70136, 1996.
	Englert et al., "Inhibition of Integrative Cartilage Repair by Synovial Fluid Components," *Trans. Orthop. Res.* 29: 189, 2003.
	Flannery et al., "Articular Cartilage Superficial Zone Protein (SZP) is Homologous to Megakaryocyte Stimulating Factor Precursor and is a Multifunctional Proteoglycan with Potential Growth-Promoting, Cytoprotective, and Lubricating Properties in Cartilage Metabolism," *Biochem. Biophys. Res. Comm.* 254: 535-541, 1999.
	Garg et al., "The Structure of the O-Glycosylically-Linked Oligosaccharide Chains of LPG-1, A Glycoprotein Present in Articular Lucricating Fraction of Bovine Synovial Fluid," *Carbohydrate Research* 78: 79-88, 1979.
	Hashimoto et al., "Synthesis of the First Tricomponent Bisubstrate Analogue That Exhibits Potent Inhibition Against GlcNAc:beta-1,4-Galactosyltransferase," *J. Org. Chem.* 62: 1914-1915, 1997.
	Ikegawa et al., "Isolation, Characterization and Mapping of the Mouse and Human PRG4 (proteoglycan 4) Genes," *Cytogenet. Cell Genet.* 90: 291-297, 2000.
	Jay et al., "Analysis of the Frictional Characteristics of CACP Knockout Mice Joints with the Modified Stanton Pendulum Technique," *Trans. Orthop. Res.* 28: 136, 2003.
	Jay et al., "Boundary Lubrication by Lubricin is Mediated by O-Linked Beta (1-3) Gal-GalNAc Oligosaccharides," *Glycoconj. J.* 18: 807-815, 2001.
/ALC/	Jay, "Characterization of a Bovine Synovial Fluid Lubricating Factor. I. Chemical, Surface Activity and Lubricating Properties," *Connective Tissue Research* 28: 71-88, 1992.

EXAMINER	/Amy Clark/	DATE CONSIDERED	12/01/2008

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to applicant.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /ALC/

SUBSTITUTE FORM PTO-1449 (MODIFIED) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	Attorney Docket No.	50047/015002
	Serial No.	10/559,551
	Applicant	Fey et al.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Filing Date	April 27, 2006
	Group	Not Yet Assigned
(37 C.F.R. § 1.98(b))	IDS Filed	April 13, 2007

	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)
/ALC/	Jay et al., "Characterization of a Bovine Synovial fluid Lubricating Factor. II. Comparison with Purified Ocular and Salivary Mucin," *Connective Tissue Research* 28: 89-98, 1992.
	Jay et al., "Characterization of a Bovine Synovial Fluid Lubricating Factor. III. The Interaction with Hyaluronic Acid," *Connective Tissue Research* 28: 245-255, 1992.
	Jay et al., "Comparison of the Boundary-Lubricating Ability of Bovine Synovial Fluid, Lubricin, and Healon," *J. Biomed. Mater. Res.* 40: 414-418, 1998.
	Jay, "Current Thinking on Viscosupplementation in Osteoarthritis," *Med. Health R.I.* 87: 213-215, 2004.
	Jay et al., "The Effect of Phospholipase Digestion Upon the Boundary Lubricating Ability of Synovial Fluid," *J. Rheumatol.* 26: 2454-2457, 1999.
	Jay et al., "Homology of Lubricin and Superficial Zone Protein (SZP): Products of Megakaryocyte Stimulating Factor (MSF) Gene Expression by Human Synovial Fibroblasts and Articular Chondrocytes Localized to Chromosome 1q25," *Journal of Orthopaedic Research* 19: 677-687, 2001.
	Jay, "Joint Lubrication: A Physicochemical Study of a Purified Lubricating Factor from Bovine Synovial Fluid," Thesis, Degree of Doctor of Philosophy, State University of New York, 1990.
	Jay et al., "Lubricating Ability of Aspirated Synovial Fluid from Emergency Department Patients with Knee Joint Synovitis," *J. Rheumatol.* 31: 557-564, 2004.
	Jay et al., "Lubricin is a Product of Megaryocyte Stimulating Factor Gene Expression by Human Synovial Fibroblasts," *J. Rheumatology* 27: 594-600, 2000.
	Jay et al., "Silver Staining of Extensively Glycosylated Proteins on Sodium Dodecyl Sulfate-Polyacrylamide Gels: Enhancement by Carbohydrate-Binding Dyes," *Analytical Biochemistry* 185: 324-330, 1990.
	Kajihara et al., "Characterization of Inhibitory Activities and Binding Mode of Synthetic 6'-Modified Methyl N-Acetyl-Beta-Lactosaminide Toward Rat Liver CMP-D-Neu5Ac: D-Galactoside-(2-->6)-Alpha-D-Sialyltransferase," *Carbohydr. Res.* 247: 179-193, 1993.
	Khan et al., "A Trisaccharide Acceptor Analog for N-Acetylglucosaminyltransferase V Which Binds to the Enzyme but Sterically Precludes the Transfer Reaction," *J. Biol. Chem.* 268: 2468-2473, 1993.
	Kim et al., "A Rationally Designed Inhibitor of α-1,3-Galactosyltransferase," *J. Am. Chem. Soc.* 121: 5829-5830, 1999.
	Kuan et al., "Inhibition of Mucin Glycosylation by Aryl-N-Acetyl-Alpha-Galactosaminides in Human Colon Cancer Cells," *J. Biol. Chem.* 264: 19271-19277, 1989.
/ALC/	Lorenzo et al., "A Novel Cartilage Protein (CILP) Present in the Mid-Zone of Human Articular Cartilage Increases with Age," *J. Biol. Chem.* 273: 23463-23468, 1998.

EXAMINER	/Amy Clark/	DATE CONSIDERED	12/01/2008

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with the next communication to Applicant.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /ALC/

SUBSTITUTE FORM PTO-1449 (MODIFIED) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	Attorney Docket No.	50047/015002
	Serial No.	10/559,551
	Applicant	Fey et al.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Filing Date	April 27, 2006
	Group	Not Yet Assigned
(37 C.F.R. § 1.98(b))	IDS Filed	April 13, 2007

	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)
/ALC/	Lorenzo et al., "Cloning and Deduced Amino Acid Sequence of a Novel Cartilage Protein (CILP) Identifies a Proform Including a Nucleotide Pyrophosphohydrolase," *J. Bio. Chem.* 273: 23469-23475, 1998.
	Lowary et al., "Recognition of Synthetic O-Methyl, Epimeric, and Amino Analogues of the Acceptor Alpha-L-Fuc p-(1-->2)-Beta-D-Gal p-OR by the Blood-Group A and B Gene-Specified Glycosyltransferases," *Carbohydr. Res.* 251: 33-67, 1994.
	Lu et al., "New Synthetic Trisaccharide Inhibitors for N-Acetylglucosaminyltransferase-V," *Bioorg. Med. Chem.* 4: 2011-2022, 1996.
	Merberg et al., "A Comparison of Vitronectin and Megakaryocyte Stimulating Factor," *Biology of Vitronectins and Their Receptors*, 45-53, 1993.
	Miura et al., "Synthesis and Evaluation of Morpholino- and Pyrrolidinosphingolipids as Inhibitors of Glucosylceramide Synthase," *Bioorg. Med. Chem.* 6: 1481-1489, 1998.
	Muller et al., "Efficient Sialytransferase Inhibitors Based on Transition-State Analogues of the Sialyl Donor," *Angewandte Chemie-Int. Ed.* 37: 2893-2897, 1998.
	Murray et al., "Mechanism of Human Alpha-1,3-Fucosyltransferase V: Glycosidic Cleavage Occurs Prior to Nucleophilic Attack," *Biochemistry* 36: 823-831, 1997.
	Neville et al., "Hydrophobic Glycosides of N-Acetylglucosamine Can Act as Primers for Polylactosamine Synthesis and Can Affect Glycolipid Synthesis *In Vivo*," *Biochem. J.* 307: 791-797, 1995.
	Obradovic et al., "Integration of Engineered Cartilage," *J. Orthop. Res.* 19: 1089-1097, 2001.
	Palcic et al., "A Bisubstrate Analog Inhibitor for Alpha(1→2)-Fucosyltransferase," *J. Biol. Chem.* 264: 17174-17181, 1989.
	Rhee et al., "The Secreted Glycoprotein Lubricin Protects Cartilage Surfaces and Inhibits Synovial Cell Overgrowth," *J. Clinical Invest.* 115: 622-631, 2005.
	Rogart et al., "Articular Collagen Degradation in the Hulth-Telhag Model of Osteoarthritis," *Osteoarthritis Cartilage* 7: 539-547, 1999.
	Sarkar et al., "Disaccharide Uptake and Priming in Animal Cells: Inhibition of Sialyl Lewis X by Acetylated Gal Beta 1-->4GlcNAc Beta-O-Naphthalenemethanol," *Proc. Natl. Acad. Sci. USA* 92: 3323-3327, 1995.
	Sarkar et al., "Fucosylation of Disaccharide Precursors of Sialyl Lewis^x Inhibit Selectin-Mediated Cell Adhesion," *J. Biol. Chem.* 272: 25608-25616, 1997.
	Schaefer et al., "Lubricin Reduces Cartilage—Cartilage Integration," *Biorheology* 41: 503-508, 2004.
/ALC/	Schumacher et al., "A Novel Proteoglycan Synthesized and Secreted by Chondrocytes of the Superficial Zone of Articular Cartilage," *Archives of Biochemisty and Biophysics* 311: 144-152, 1994.

EXAMINER	/Amy Clark/	DATE CONSIDERED	12/01/2008

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SUBSTITUTE FORM PTO-1449 (MODIFIED) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	Attorney Docket No.	50047/015002
	Serial No.	10/559,551
	Applicant	Fey et al.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Filing Date	April 27, 2006
	Group	Not Yet Assigned
(37 C.F.R. § 1.98(b))	IDS Filed	April 13, 2007

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PLACE OF PUBLICATION)	
/ALC/	Stults et al., "Characterization of the Substrate Specificity of Alpha1,3Galactosyltransferase Utilizing Modified N-Acetyllactosamine Disaccharides," *Glycobiology* 9: 661-668, 1999.
	Sun et al., "Expression and Mapping of Lubricin in Canine Flexor Tendon," *J. Orthop. Res.* 24: 1861-1868, 2006.
	Sun et al., "Mapping Lubricin in Canine Musculoskeletal Tissues," *Connect. Tissue Res.* 47: 215-221, 2006.
	Swann et al., "The Molecular Structure and Lubricating Activity of Lubricin Isolated from Bovine and Human Synovial Fluids," *Biochem. J.* 225: 195-201, 1985.
	Swann et al., "The Molecular Structure of Lubricating Glycoprotein-I, the Boundary Lubricant for Articular Cartilage," *J. Biological Chemistry* 256: 5921-5925, 1981.
	Turner et al., "Purification, Biochemical Characterization, and Cloning of a Novel Megakaryocyte Stimulating Factor that has Megakaryocyte Colony Stimulating Activity," *Blood* 78: 279a, 1991 (#1106).
/ALC/	Zappone et al. "Adsorption, Lubrication, and Wear of Lubricin on Model Surfaces: Polymer Brush-Like Behavior of a Glycoprotein," *Biophys. J.* 92: 1693-1708, 2007.

EXAMINER	/Amy Clark/	DATE CONSIDERED	12/01/2008

EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /ALC/